TI-35988

REMARKS

Paragraph [0030] is amended to add ")".

Claims 4 and 8 are amended to overcome the rejections based on 35 U.S.C. 112 second paragraph.

Claim 1 is rejected under 35 U.S.C. 102 (b) as being anticipated by Mauro et al. (US 2001/0001853; hereinafter Mauro) filed December 20, 2000.

Claim 1, as amended, calls for "filtering the noise suppressed signal in which the background noise has been removed with a spectral inverse filter, said spectral inverse filter is determined by spectrum maxima and the inverse filtering operation comprising the steps of :

in the logarithmic (dB) domain, removing the mean spectral magnitude from the original speech spectrum,

in the mean removed short term frequency spectrum $S(i)$, $(i=1...128)$, determining all the frequency position (Pj), whose magnitudes are maxima over a window centered around Pj and stretching N positions to the left and right of Pj,

in the list of peaks, adding the first (i=1) and last (i=128) frequency positions, their associated magnitudes set equal to the mean of the first and last M x N magnitudes, respectively,

removing the mean of the peak magnitudes from each peak magnitude,

if the largest resulting peak magnitude exceeds MAX_dB_DN, normalizing all peaks so that the largest peaks magnitude becomes MAX_dB_DN, and

the resulting inverse filtering $H(i)$, (i=1...128) is defined as the maximum of the normalized peaks and 0 dB, and

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removing the inverse filter from the original spectrum in the logarithmic domain $U(i) = S(i) - H(i)$ and measuring the periodicity of the ~~incoming~~ signal from the inverse filter using an autocorrelation function to determine whether a signal frame correspond to a speech frame or not." It is not seen where this is taught in Mauro (US 2001/0001853) or Gong (U.S. Patent no. 6,980,950, hereinafter Gong), Wu et al. (U.S. Patent No. 6,473,735, hereinafter Wu) or any of the other references cited by the examiner.

Claims 2-5 dependent on claim 1 are deemed allowable for at least the same reasons claim 1 is deemed allowable.

Claim 10 calls for "locating close low-frequency formants in the noise subtracted signal if they exist and inserting spectral valleys between said formants before inverse filtering."

This not is taught or suggested in Mauro, Gong or Wu or the other cited references, Claim 10 is deemed allowable.

Claims 7 and 8 dependent on Claim 10 are deemed allowable for at least the same reasons as claim 10.

Claim 11 dependent on claim 10 is deemed allowable for at least the same reasons as claim 10 and further calls for "said spectral inverse filter is determined by spectrum maxima and the inverse filtering operation by the steps of :

in the logarithmic (dB) domain, removing the mean spectral magnitude from the original speech spectrum,

in the mean removed short term frequency spectrum $S(i)$, $(i=1...128)$, determining

all the frequency position (Pj), whose magnitudes are maxima over a window centered

around Pj and stretching N positions to the left and right of Pj,

in the list of peaks, adding the first (i=1) and last (i=128) frequency positions with

their associated magnitudes set equal to the mean of the first and last M. N magnitudes,

respectively,

removing the mean of the peak magnitudes from each peak magnitude,

if the largest resulting peak magnitude exceeds MAX_dB_DN, normalizing all

peaks so that the largest peaks magnitude becomes MAX_dB_DN,

the resulting inverse filtering $H(i)$, (i=1...128) is defined as the maximum of the

normalized peaks and 0 dB, and

removing the inverse filter from the original spectrum in the logarithmic domain

$U(i)= S(i)- H(i)$. "

It is not seen where this is taught or suggested in Mauro, Gong , Wu or any of the

cited references.

Since there are no other reasons for rejection, applicant's amended claims 1-5, 7

and 8 and new claims 10 and 11 are deemed allowable and an early notice of allowance is

deemed in order and is respectfully requested.

Respectfully submitted;

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